IN THE CLAIMS

1. (Original) In a system that includes a first unit and a backup unit, said first unit and said backup unit being adapted to communicate via a packet network, said first unit including an operating system, an exception handler and a network interface unit, said exception handler being activated when said operating system suffers a fault, the improvement which includes a notification program that operates when the exception handler is activated, said notification program being adapted to send a control packet to the backup unit via said network interface unit without utilizing said operating system software, whereby said backup unit can be notified immediately when said first unit suffers a software fault.

2. (Currently amended) A network router which ~~included~~ includes an exception handler, a plurality of CMTS cards interconnected by a signal bus, one of said cards being a backup card, each of said cards including an ASIC which interfaces said card to said ~~control~~ signal bus, a notification program activated when said exception handler is activated, said notification program being adapted to send a signal to said backup card ~~unit~~ via said ASIC on said backup card, to activate said backup card ~~unit~~.

3. (Currently amended) A network router ~~with included~~ which includes an exception handler, a plurality of CMTS cards each of which is connected to a data bus, one of said cards being a backup card, each of said cards including an ASIC which interfaces said card to said data bus, a notification program activated when said exception handler is activated, said notification program being adapted to send a control packet to said backup unit via said ASIC, to activate said backup unit

4. (Original) The system recited in claim 1 wherein said first unit and said backup unit are network routers.

5. (Original) The system recited in claim 1 wherein said first unit and said backup unit are Cable Modem Termination Systems (CMTS).

6. (Original) The system recited in claim 1 wherein said first unit and said backup unit are connected to a local area network.

7. (Original) The system recited in claim 4 wherein said first unit and said backup unit are connected to a local area network.

8. (Original) The system recited in claim 1 wherein said first unit and said backup unit are network routers connected to a wide area network.

9. (Original) The system recited in claim 1 wherein said network interface unit operates independent from said operating system.

10. (Original) The system recited in claim 9 wherein said network interface unit includes a DMA ring, and packets placed in said DMA ring are transmitted on said network.

11. (Original) The system recited in claim 10 wherein said exception handler places said control packet in said DMA ring of said network interface unit.

12. (Original) A system that includes a first unit and a backup unit,
means for communicating between said first unit and said backup unit via a packet network means,
operating system means in said first unit,
exception handler means in said first unit, said exception handler being activated when said operating system suffers a software fault
network interface means in said first unit, and
means operable when said exception handler is activated to send a control packet to said backup unit via said network interface means without utilizing said operating system means,
whereby said backup unit can be notified immediately when said first unit suffers a software fault.

13. (Original) The system recited in claim 12 wherein said first unit and said backup unit are network routing means.

14. (Original) The system recited in claim 12 wherein said first unit and said backup unit are Internet network routing means.

15. (Original) The system recited in claim 12 wherein said first unit and said backup unit are connected to a local area network means.

16. (Currently amended) The system recited in claim ~~4~~ 13 wherein said first unit and said backup unit are connected to a local area network.

17. (Original) The system recited in claim 14 wherein said first unit and said backup unit are network routers connected to a wide area network.

18. (Original) The system recited in claim 12 wherein said network interface means operates independent from said operating system means.

19. (Original) The system recited in claim 18 wherein said network interface means includes a DMA ring means, and packets placed in said DMA ring means are transmitted on said packet network means.

20. (Original) The system recited in claim 19 wherein said exception handler places said control packet in said DMA ring of said network interface unit.

21. (Original) A method of notifying a backup unit that a first unit has suffered a fault, said first unit including an operating system, an exception handler and an interface unit that can communicate with said backup unit, said method including the steps of:
activating said exception handler when said operating system suffers a software fault,
sending a notification from said exception handler to said interface unit when said exception handler is activated,
activating said interface unit to send a notification to said backup unit without utilizing said operating system software,

whereby said backup unit can be notified immediately when said first unit suffers a software fault.

22. (Original) The method recited in claim 21 wherein said exception handler activates said interface unit to send a control packet from said first unit to said backup unit.

23.) (Original) The method recited in claim 21 wherein said interface unit includes a DMA ring and said exception handler places control packet directly in said DMA ring for transmission to said backup unit.

24. (Previously presented) A computer readable medium containing instructions which, when executed in a system, cause said system to perform the method recited in claim 21.

25. (Previously presented) A computer readable medium containing instructions which, when executed in a system, cause said system to perform the method recited in claim 22.